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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,109	05/31/2000	James C. Lungaro	A-68938/MAK/LM	7799

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EXAMINER

SONG, HOSUK

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 01/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/588,109

Applicant(s)

LUNGARO ET AL.

Examiner

Hosuk Song

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Action is response to applicant's correspondence dated 5/31/00.
2. Claims 1-22 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2,6-10,12-14,16-17,19-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Bilger et al.(US 6,317,835).

Claim 1: Bilger patent teaches a pad for entering an identifier in (fig.1 and col.2,lines 11-22). Bilger teaches a circuit, adjacent the pad, for encrypting the entered identifier in (fig.3 and col.2,lines 26-29) and a link,communicatively coupling the pad and encrypting circuit in (fig.3;col.3,lines 66-67 and col.4,lines 1-7).

Claim 2: Bilger discloses a touch pad in (col.4,lines 57-58).

Claim 6: Bilger patent discloses pad comprises a touch screen in (col.4,lines 57-58).

Claim 7: Bilger patent discloses a pad for entering a personal identifier (PIN) in (col.2,lines 11-14).

Claim 8: Bilger discloses a CPU and a memory, coupled to CPU and programmed to encrypt in (col.3,lines 66-67 and col.4,lines 1-2,8-21,31-38 and fig.1,3).

Claim 9: Bilger discloses where CPU and programmed memory are the first CPU, programmable to encrypt the entered identifier, through which the identifier passes in (col.2,lines 13-29;col.3,lines 66-67 and col.4,lines 1-2,8-21,31-38 and fig.1,3).

Claim 10: Bilger discloses a microcontroller programmed to encrypt in (col.4,lines 14-21).

Claim 12: Bilger discloses a housing enclosing the encryption circuit and link and resistant to access in (col.4,lines13-26).

Claim 13: Bilger discloses housing resistant to tampering in (col.3,lines 50-55,col.4,lines13-30).

Claim 14: Bilger discloses housing resistant to tapping in (col.3,lines 50-55,col.4,lines 8-30).

Claim 16: Bilger discloses housing in which the encrypting circuit is embedded in (fig.3 and col.4,lines 17-18,31-38).

Claim 17: Bilger discloses housing in which the link and encrypting circuit are embedded in (fig.3).

Claim 19: Bilger disclose pad for entering an identifier in (fig.1 and col.2,lines 11-22). Bilger discloses a link,communicatively coupling the pad and encrypting circuit adjacent in an access-resistant housing in (fig.3;col.3,lines 66-67 and col.4,lines 1-14). Bilger patent discloses a pad for entering a personal identifier (PIN) and encrypting the identifier by means of encryption circuit in (col.2,lines 11-14 and fig.3).

Claim 20: Bilger patent discloses forwarding the encrypted identifier for verification in (col.2,lines 27-30).

Claim 21: Bilger patent teaches a pad for entering an identifier in (fig.1 and col.2,lines 11-22). Bilger teaches a circuit, adjacent the pad, for encrypting the entered identifier in (fig.3 and col2,2,lines 26-29) and a link,,communicatively coupling the pad and encrypting circuit in (fig.3;col.3,lines 66-67 and col.4,lines 1-7). Bilger discloses a housing enclosing the encryption circuit and link and resistant to access in (col.4,lines13-26).

Claim 22: Bilger discloses a circuit adjacent the pad in (fig.1,3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilger et al.(US 6,317,835).

Claims 3-5: Bilger does not specifically disclose n-wire technology touch pad(n=4,7). Official notice is taken that four wire and a seven wire technology touch pad is well known in the art. One of ordinary skill in the art would have been motivated to use n-wire-technology touch pad because n-wire technology touch pad offers extremely high resolution,accuracy and positioning speed using n-wire technology. Further as additional wires are employed (such that n= 4 through7) in touch pad, it provide reliable lifespan, noise reduction and high expandability for future use.

3. Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilger et al.(US 6,317,835) in view of Coli(US 5,452,355).

Claim 11: Bilger does not specifically disclose encrypting circuit comprising an application-specific integrated circuit (ASIC). Coli's patent teaches encrypting circuit comprising an application-specific integrated circuit (ASIC) in (col.1,lines 11-20,56-59;col.2,lines 3-7). It would have been obvious to person of ordinary skill in the art at the time invention was made to employ ASIC as taught in Coli with encryption circuit disclosed in Bilger because ASIC provides

high performance, lower piece part cost, more manageable die size and more reliable design flow. Further, ASIC provides considerable advantage in terms of battery conservation.

4. Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilger et al. (US 6,317,835) in view of Tsuji et al. (US 5,821,622).

Claim 15: Bilger does not specifically disclose chip-on-glass technology. Tsuji's patent discloses LCD device with chip-on-glass technology (COG) in (col.23, lines 60-67). It would have been obvious to person of ordinary skill in the art at the time invention was made to employ chip-on-glass technology as taught in Tsuji with touch screen system disclosed in Bilger because COG technology saves space since the display drivers that help turn screen's pixels on and off don't have to be housed in separate microchips. COG reduces a mounting area and is better handling high speed or high frequency signals. Further, COG technology is cost effective over COB because much less IC's are required.

5. Claims 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilger et al. (US 6,317,835) in view of Coli (US 5,452,355) and further in view of Tsuji et al. (US 5,821,622).

Claim 18: Bilger patent teaches a pad for entering an identifier in (fig.1 and col.2, lines 11-22). Bilger teaches a circuit, adjacent the pad, for encrypting the entered identifier in (fig.3 and col.2, lines 26-29) and a link, communicatively coupling the pad and encrypting circuit in (fig.3; col.3, lines 66-67 and col.4, lines 1-7). Bilger does not specifically disclose encrypting circuit comprising an application-specific integrated circuit (ASIC). Coli's patent teaches encrypting circuit comprising an application-specific integrated circuit (ASIC) in (col.1, lines 11-20, 56-59; col.2, lines 3-7). It would have been obvious to person of ordinary skill in the art at the time invention was made to employ ASIC as taught in Coli with encryption circuit disclosed in Bilger because ASIC provides high performance, lower piece part cost, more manageable die size and more reliable

Art Unit: 2135

design flow. Further, ASIC provides considerable advantage in terms of battery conservation. Neither Bilger nor Coli specifically discloses chip-on-glass technology. Tsuji's patent discloses LCD device with chip-on-glass technology(COG) in (col.23,lines 60-67). It would have been obvious to person of ordinary skill in the art at the time invention was made to employ chip-on-glass technology as taught in Tsuji with touch screen system disclosed in Bilger and ASIC disclosed in Coli because COG technology saves space since the display drivers that help turn screen's pixels on and off don't have to be housed in separate microchips. COG reduces a mounting area and is better handling high speed or high frequency signals. Further, COG technology is cost effective over COB because much less IC's are required. Bilger does not specifically discloses n-wire technology touch pad(n=4,7). Official notice is taken that four wire and a seven wire technology touch pad is well known in the art. One of ordinary skill in the art would have been motivated to use n-wire-technology touch pad because n-wire technology touch pad offers extremely high resolution,accuracy and positioning speed using n-wire technology. Further as additional wires are employed (such that n= 4 through7) in touch pad, it provide reliable lifespan, noise reduction and high expandability for future use.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hosuk Song whose telephone number is 703-305-0042. The examiner can normally be reached on Tue-Fri from 5:30 am- 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 703-305-4393. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/588,109

Page 7

Art Unit: 2135

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


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